UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,575	05/13/2002	Thian Liang Ong	2001-1012	6348

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/031,575	ONG, THIAN LIANG
	Examiner	Art Unit	
	Akash Saxena	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/6/07*.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 12-17* is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 12-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claim(s) 1-10 and 12-17 has been presented for examination based on amendment filed on 6th March 2007.

2. Petition to revive this case was granted on 19th July 2007 under 37 CFR 1.137(b).

3. Claim(s) 1, 7, 9, 12-16 is/are amended.

4. Claim(s) 11 is/are cancelled.

5. Claim(s) 1 is newly rejected under 35 USC § 101 based on the amendment.

6. Claim(s) 1-10 & 12-17 are newly rejected under 35 USC § 112 based on the amendment.

7. Claim(s) 1-10 & 12-17 are newly rejected under 35 USC § 103 based on the amendment.

8. The arguments submitted by the applicant have been fully considered. Claims 1-10 & 12-17 remain rejected and this action is made FINAL. The examiner's response is as follows.

Response to Applicant's Remarks Amendment

9. Examiner withdraws the claim rejection(s) under 35 USC § 102 to claim(s) 1-10 & 14-17 in view of the applicant's amendment.

10. Examiner withdraws the claim rejection(s) under 35 USC § 103 to claim(s) 1 in view of the applicant's amendment.

11. Examiner acknowledges receipt of translation of JP10216361 prior art submitted on IDS.

12. Examiner withdraws the claim objection(s) to claims 14-15 in view of the amendment by applicant.

13. Examiner acknowledges receipt of updated abstract.

14. Examiner acknowledges receipt of correction to the specification demarcating

sections of the specification.

Claim Objections

15. Claim 17 is objected to under 37 CFR 1.75(c), as being of improper dependent form

for failing to further limit the subject matter of a previous claim. Applicant is required

to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper

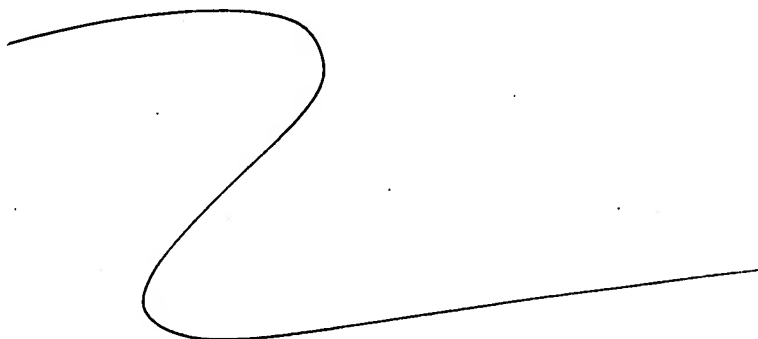dependent form, or rewrite the claim(s) in independent form.

Specifically, claim 17 discloses a different statutory class (Program product) than the

parent claim (system).

Arrangement of the Specification

16. As provided in 37 CFR 1.77(b), the specification of a utility application should include

the following sections in order. Each of the lettered items should appear in upper

case, without underlining or bold type, as a section heading. If no text follows the

section heading, the phrase "Not Applicable" should follow the section heading:

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

Applicant has not provided an appropriate description of the only drawing the

disclosure, therefore the specification is objected to.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

17. Claim 1 discloses a system with no support (hardware) for such a system in either the preamble or the in the limitations. Although the specification has "means for" language, but seems to missing hardware mapped to the "means for". Mere recitation of system does not make a system tangible. Dependent claims do not seem to cure this deficiency and rejected likewise.

18. Claim 17 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim 17 is amended as it inherits its limitations from claim 1. Claim 1 now reads having environmental database, however claim 17 discloses merely a CD storing the position and time data which is non-functional descriptive material. Hence the claim is deemed non-statutory.

Claim Rejections - 35 USC § 112¶1st

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

19. Claims 1-10 and 12-17 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1-17 discloses various "mean for" limitations and it

is unclear where the support exists for all these limitations in the specification.

Hence the claims as presented are not enabled by current specification.

Claim Rejections - 35 USC § 112¶2nd

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

20. Claim 1-10 & 12-17 are rejected under 35 U.S.C. 112, second paragraph,

as being indefinite for failing to particularly point out and distinctly claim

the subject matter which applicant regards as the invention.

<u>Regarding Claim 1</u>

The preamble in the claim discloses "system comprising" which includes all

limitations, followed by (last limitation) the system comprises (nested comprising). It

is unclear if the last limitation "further" comprising is applicable to step e) or is whole

claim directed to a database? Dependent claims do not seem to cure this deficiency

and rejected likewise.

Response to Applicant's Remarks for 35 U.S.C. § 103

(Argument 1) Applicant has argued the following:

> This makes sense when one recalls that the KHOSLA invention is a game play system that allows remote players to participate in a concurrent simulation of a live event as the live event is occurring. *The system gathers input from sensors located at the live event, preprocesses this input, and transfers it to a computer system, which uses this input to create a concurrent simulation of the live event. A remote game player can then interact with the concurrent simulation by providing input to the concurrent simulation through a user interface.* **[1]** This system combines the excitement of a highly interactive video game with the drama and publicity surrounding a live event. See the KHOSLA Abstract.
> What KHOSLA teaches is how to have a remote player participate in a live event, by using data gathered from that live event. See, e.g., column 5, line 66 to column 6, line 12, which specifies that the display contains entities representing simulated participants and live participants. *Furthermore, column 6, lines 49-60 clearly teaches that a television signal is transmitted, which excludes the possibility of a generated (simulated) environment.* **[2]**

(Response 1) Examiner respectfully disagrees that teaching of Khosla excludes the

possibility of generated environment. Please see title of the Khosla (Simulated

Realtime Game Play with Live Event"). Secondly, remarks **[1]** contradict the

allegation **[2]**. For at least the reasons above the argument is unpersuasive.

(Argument 2) Applicant has argued the following:

> This live environment aspect of KHOSLA is further clear from column 7, lines 15-25 which
> explicitly discloses that only computer-generated images of simulated participants are mixed with
> a live video feed from live event l00.
> \<listing Khosla column 7, lines 15-25>
> From the above, it is clear that KHOSLA does not require an environment database since
> KHOSLA relies on the live feed to place the player into a live event.

(Response 2) In response to applicant's arguments against the references

individually, one cannot show nonobviousness by attacking references individually

where the rejections are based on combinations of references. See *In re Keller*, 642

F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231

USPQ 375 (Fed. Cir. 1986). Examiner has stated previously in the rejection that

Khosla does not explicitly teach environment database, but it would be necessitated

through obviousness that such a database instance to be present to create the

virtual 3D model from the GPS data received (Khosla: Col.7 Lines 61-67). Myers

reference is used to overcome the limitation not explicitly stated by Khosla.

(Argument 3) Applicant has argued the following:

> The present rejection arises from improper application of hindsight. The analysis is not whether
> the prior art had the technology to achieve the invention, but rather, the invention is taught or
> suggested by the relevant prior art, taking into account what the reference being modified was
> intended to do.

(Response 3) Applicant has cited numerous court cases stating that the present

rejection arises from improper application of hindsight. In response to applicant's

argument that the examiner's conclusion of obviousness is based upon improper

hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Specifically, teachings of Khosla & Meyers take into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure. Khosla teaches performing simulation of an even happening in a real environment and Meyers a database to store objects in a simulation environment.

(Argument 4) Applicant has further questioned the motivation to combine the teachings of Meyers with Khosla.

(Response 4) The reasons to combine can come from teaching, suggestion and motivation provided in the application (TSM test) as presented in the rejection as:

> It would have been obvious to one (e.g. a designer) of ordinary skill in the art at the time the invention was made to apply the teachings of Myers to Khosla to have a selectable venue choice. The motivation to combine would have been that Khosla is combining simulation data with the GPS information to create simulation (as explained above the need for database by Khosla), and Myers teaches simulation racecar where selection criteria for various environment options (venue/setting/cars) are available (Myers: Abstract; Khosla: Fig.5).

Further inline with current ruling made in KSR International Co. v Teleflex Inc., the rationales to combine can derived from following:

> (A) Combination of Prior art elements according to known methods to yield predictable results.
> (B) Simple substitution of known element for another to obtain predictable result.
> (C) Use of known techniques to improve similar device (method or product) in the same way.
> (D) Applying a known technique to a known device (method or product) ready for improvement to yield the predictable result.

(E) "Obvious to try" - choosing from a finite number of identified, predictable solutions, with reasonable expectation of success.

(F) Known work in the field of endeavor may prompt variation of it for use in the either the same field or a different one based n the design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art.

(G) The analysis and presentation of teaching, suggestion and motivation to combine is same as done inline with MPEP 2143.01 below in the rejection.

The reasons (A), (B) and (C) as applied to current prior art combination, teachings of Meyers and Khosla produce an expectable result of simulation of real environment (Khosla) where the information about the environment (e.g. static and dynamic objects etc) is held in the database as disclosed in Meyers. As indicated Khosla would need some sort of database even if the simulation is not replay of real event and an actual feed to handle the multiple players. Having a player database, environment databases etc are all known techniques. Please see U.S. Patent No.5745126.

The reason for (F) is there are commercial softwares available as shown by Khosla and Meyers in their respective disclosure to perform the simulation and game playing with databases. E.g. Meyers: Description of prior art showing commercially available video games and computer games that simulate racecar driving; FLIGHT SIMULATOR. Khosla reference to US Patent No. 5495576, 4339798, 5526035. Applicant's argument regarding establishing a prima facie case of obviousness are considered and are found to be unpersuasive.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

21. **Claim 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

U.S. Patent No. 6,080,063 issued to Vinod Khosla (Khosla hereafter), in view of

U.S. Patent No. 5,921,780 issued to Nicholas J. Myers (Myers hereafter).

Regarding Claim 1 (New updated grounds)

Khosla teaches a system for simulating events in a real environment containing

static objects and dynamic objects as moving cars & scenery (Khosla: Col.8 Lines

16-29); position locating means for continuously determining the real environment

the position of the dynamic objects in relation to the static objects within a time

period in which the event takes place (Khosla: Col.3 Lines.59-63); storage means for

storing data describing the dynamic and static objects of the environment (Khosla:

Col.3-Line 59- Col.4 Line 52; Particularly Col.4 Lines 48-50; Fig.3 Element 320).

Khosla teaches processing means (Khosla: Fig.4 Element 400) operatively

connected (Khosla: Fig.4 Element 130) to said position locating means (Khosla:

Fig.4 Element 110) and said storage means (Khosla: Fig.3 Element 320).

Khosla further teaches processing means for processing data from the storage

elements describing the static and dynamic objects data from the position locating

unit indicating at a certain moment the mutual positions of the static and dynamic

objects of the environment, the processing elements being loaded with simulation

software (Khosla: Col.3-Line 59- Col.4 Line 5; Fig.1-3; Col.); display elements for

displaying a simulated view from a selected viewpoint on the simulated environment

as a result of the processing by the processing elements(Khosla: Col.5 Lines 60-65);

control elements to repeat the functioning of the processing and display elements for

a range of consecutive time moments which together determine the above-

mentioned time period (Khosla: Col.3-Line 59- Col.4 Line 52; Col.7 Lines 1-3, 26-37-

Playback & recording; Col.7 Lines 61-67 - Display); wherein the position locating unit

includes a satellite navigation system, or a thereto-related system (Khosla: Col.3-

Line 59-63).

Khosla teaches the step d) amended limitations disclosing display means operatively

connected to the said processing means (Khosla: Fig.3-4). Khosla also teaches step

e) amended limitations disclosing control means operatively connected to said

processing means and to said display means and control means to repeat the

functioning of the processing means and the display means (Khosla: Fig.4 element

160 as control means or 140 using Fig.3 element 370 for example; control means

connected to elements 320, 300 and 380).

Khosla does not explicitly teach environment database, but it would be

necessitated through obviousness that such a database instance to be present to

create the virtual 3D model from the GPS data received (Khosla: Col.7 Lines 1-3,

61-67).

Myers teaches system comprises an environment database in which data about

a number of possible competition environments are stored so that, after the specific

environment where the competition will be held is known, the simulation of

environment can be adapted to the choice of the real environment (Myers: Fig.1-2,

Col.8 Lines 39-60).

It would have been obvious to one (e.g. a designer) of ordinary skill in the art at

the time the invention was made to apply the teachings of Myers to Khosla to have a

selectable venue choice. The motivation to combine would have been that Khosla is

combining simulation data with the GPS information to create simulation (as

explained above the need for database by Khosla), and Myers teaches simulation

racecar where selection criteria for various environment options (venue/setting/cars)

are available (Myers: Abstract; Khosla: Fig.5).

Regarding Claim 2

Khosla teaches storage means, processing means, display means, and control

means are installed as a user terminal at a place re-mote from the real environment

and that transfer means are used to transfer positional data from the position

locating means to the storage means (Khosla: Fig1-3; Col.3 Line 33- Col.5 Line16).

Regarding Claim 3

Khosla teaches each user of the system storage means, processing means, display means, and control means are installed as user terminals at a place remote from the real environment (Khosla: Fig1-3; Col.3 Line 33- Col.5 Line16) and that transfer means are used to transfer positional data from the position locating means to all said storage means (Khosla: Col.4 Lines 54-67).

Regarding Claim 4

Khosla teaches Internet is used as transfer means (Khosla: Col.4 Lines 55-58).

Regarding Claim 5

Khosla teaches telephone network is used as transfer means (Khosla: Col.4 Lines 66-67).

Regarding Claim 6

Khosla teaches that during the whole time period of a competition all positional data together with corresponding time data are stored in a memory, which memory can be used after the competition as transfer medium (Khosla: Col.7 Lines 26-37).

Regarding Claim 7

Khosla does not teach memory is formed by disk (Khosla: Fig.3 Element 320).

Regarding Claim 8-10

Khosla teaches that the system comprises a competitor's database in which data about a number of possible competitors are stored so that, after the competitors for a particular event or competition are known, the simulation of the real competitors within the simulated environment can be adapted; that data about competitors which are not present in the competitor database can be transferred through a suitable

transfer medium from a suitable source to the system to become stored in said

competitor data-base; (Khosla: Col.6 Lines 12-17; Col.Col.7 Lines 38-45; col.8 Lines

59-67; col.9 Lines 4-11; Fig.1); competitors database is integrated into the user

terminal (Khosla: Col.7 Lines 1-2).

Regarding Claim 12 & 13

Myer teaches environment database (as shown above) and Khosla teaches that the

data which is not contained in the environment database, can be transferred from a

suitable source to the system through suitable transfer means to become stored in

database (Khosla: Col.9 Lines 4-11; Fig 2).

Regarding Claim 14

Khosla teaches that special events, which will happen during the real competition,

are stored as separate image data in said memory respectively CD (as disk), such

that these images can be displayed at suitable time moments during the simulated

competition (Khosla: Col.7 Lines 4-25; Fig.3).

Regarding Claim 15

Khosla teaches that special events, which will happen during the real competition,

are stored as separate image data in said memory respectively CD, such that these

images can be displayed at suitable time moments during the simulated competition

(Khosla: Col.6 Line 49 – Col.7 Line 25 - Image delay & synchronization).

Regarding Claim 16

Khosla teaches display means for displaying the simulation of at least part of the

environment with the dynamic objects therein is formed by a so-called "virtual reality-

helmet" as virtual driver's view (Co.7 Lines 61-67).

<u>Regarding Claim 17</u>

Khosla teaches storing data on disc comprising positional data and corresponding

time data (Khosla: Col.3 Lines 60-63; Fig.2) of at least a number of competitors to

the real competition during at least part of a real competition (Khosla: Col7-9; Live

event simulation example). Time data can be derived from speed and position and is

also implicitly part of the GPS data.
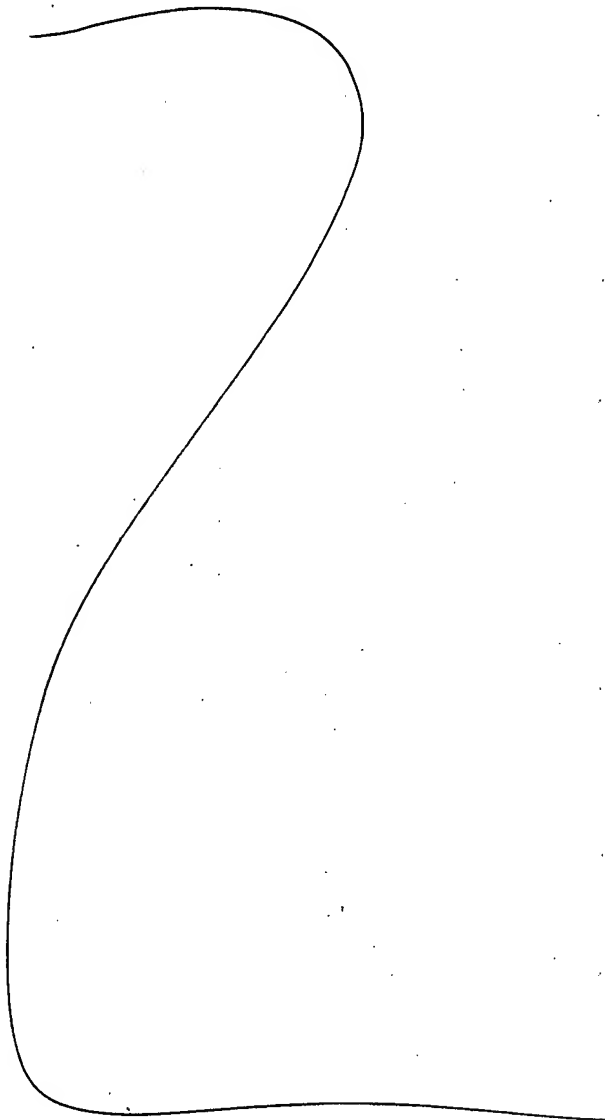
Conclusion

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and

any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing

date of the advisory action. In no event, however, will the statutory period for reply

expire later than SIX MONTHS from the date of this final action.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Akash Saxena whose telephone number is (571) 272-8351. The examiner can normally be reached on 9:30 - 6:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini S. Shah can be reached on (571)272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS

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